Appl. No. 10/512,009

Amdt. Dated October 6, 2009

Reply to Office action of April 16, 2009

## **Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

(Currently amended) A method for <u>selecting volunteer patients for a clinical trial by</u> phenotyping of a <u>group of several</u> human individual comprising determining *in vivo* CYP 450 <u>protein</u> activity and thereby obtaining a characteristic of said human individual, the determination comprising

a) hyperpolarising the NMR active nuclei of samples collected from a human individual preadministered with at least more than one probe compound containing at least one NMR active nuclei, wherein the probe compounds are substrates, inducers or inhibitors for CYP 450; and

b) analysing said samples by NMR spectroscopy;

c) comparing said characteristic of said human individual with characteristics of the other of said several human individuals;

d) grouping said human individuals who exhibit the same or similar characteristics into groups of volunteer patients showing a specific phenotype; and

e) selecting a group of volunteer patients obtained from step d) for use in a clinical trial.

- 2. (Cancelled).
- 3. (Cancelled).
- 4. (Cancelled).
- 5. (Cancelled).
- 6. (Cancelled).

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- 7. (Cancelled).
- 8. (Cancelled).
- 9. (Currently amended) The method according to claim <u>81</u>, further comprising the step of phenotyping of said human individual prior to said human individual receiving a therapeutic drug treatment.
- 10. (Previously presented) The method according to claim 1, wherein the at least one probe compound is enriched with NMR active nuclei.
- 11. (Previously presented) The method according to claim 1, wherein hyperpolarisation is carried out by means of polarisation transfer from a noble gas, brute force, dynamic nuclear polarisation (DNP) or spin refrigeration.
- 12. (Previously presented) The method according to claim 1, wherein the collected samples are biofluids.
- 13. (Cancelled).
- 14. (Cancelled).
- 15. (Currently amended) The method according to claim 14, wherein the at least one probe compound is a substrate, inducer or inhibitor for a CYP 450 isoenzyme selected from the group consisting of CYP1A2, CYP2A6, CYP2C8/9, CYP2C19, CYP2D6, CYP2E1 and CYP3A4.
- 16. (Previously presented) The method according to claim 1, wherein the at least one probe compound is selected from the group consisting of phenacetin, coumarin,

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tolbutamide, phenytoin, mephenytoin, S-mephenytoin, bufuralol, chlorzoxazone, midazolam, caffeine, dapsone, diclofenac, debrisoquine, bupropion, antipyrine, dextromethorphan, warfarin, diazepam, alprazolam, triazolam, flurazepam, chlodiazepoxide theophylline, phenobarbital propranolol, metoprolol, labetalol, nifedipine, digitoxin, quinidine, mexiletine, lidocaine, imipramine, flurbiprofen, omeprazole, terfenadine, furafylline, codeine, nicotine, sparteine, erythromycin, benzoylcholine, butrylcholine, paraoxon, para-aminosalicylic acid, isoniazid, sulfamethazine, 5-fluorouracil, trans-stilbene oxide, D-penicillamine, captopril, ipomeanol, cyclophosphamide, halothane, zidovudine, testosterone, acetaminophen, hexobarbital, carbamazepine, cortisol, oltipraz, cyclosporin A and paclitaxel.